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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,804	09/19/2003	Kenneth Perlin	KPER-7	6630

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EXAMINER	
MERLINO, AMANDA H	

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,804	PERLIN, KENNETH	
	Examiner	Art Unit	
	Amanda H. Merlino	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13-25* is/are rejected.

7)☒ Claim(s) *11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-10 and 13-25 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-23 of copending Application No. 10/620,920. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 21 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Davis et al (5,637,873).

Davis et al teach of an apparatus for determining a bidirectional reflectance distribution function of a subject comprising a structured light source (20) for producing light, a detector array sensor (26) for sensing the light and an ellipsoidal mirror (see figure 5) for focusing the light between the light source and the sensing means and the

subject, and a computer (7) connected to the sensing means for measuring the bidirectional reflectance function of the subject.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 7-8, 20, and 22-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al (5,637,873) in view of Bahatt et al (6,873,417).

Davis et al teach of an apparatus for determining a bidirectional reflectance distribution function of a subject comprising a structured light source (20) for producing light, a detector array sensor (26) for sensing the light and an ellipsoidal mirror (see figure 5) for focusing the light between the light source and the sensing means and the subject, and a computer (7) connected to the sensing means for measuring the bidirectional reflectance function of the subject.

With regards to claim 2, Davis et al lacks the teaching the of the sensing means having a light absorbing wall.

Official Notice is taken that of light absorbing wall/screens are old and well known in the art. See *In Re Malcolm* 1942C.D.589:543 O.G.440. At the time of the invention it would have been obvious to one of ordinary skill in the art to place a light absorbing wall/screen as part of the sensing means to absorb amabient light and/or unwanted light

from the light source to obtain a more accurate image, which would provide a more accurate measurement of the brdf.

With regards to claim 7-8, 20, and 22-25 lacks the teaching of the light source including an array of LEDs wherein the computer causes the lights in the LED array to turn on in sequence, with light from each LED taking a sub-measurement of the bidirectional reflectance distribution function.

Bahatt et al (6,873,417) teach of using an array of LED for scanning purposes (col 12; lines 21-28).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace the scanning mirror of the apparatus of Davis et al with an array of LED to scanning purposes as taught by Bahatt et al since Bahatt et al specifically teaches that it is well know in the art to use a variety of devices such as rotating mirror or an LED array for scanning purposes. Since applicant has not disclosed that the use of the LED arrays solves any stated problem, has any specific benefit, or is for any particular purpose and it appears that the invention would perform equally well as a functional equivalent with a scanning mirror. With regards to turning the LEDs in sequence, it would have been obvious to one of ordinary skill in the art to either sequentially turn on the LEDs or simultaneously turn on the LEDs depending on the desired results wherein the sequential turning on of the LEDs would eliminate the interference of the signals at the different angles, which would provide for a more precise and accurate measurement.

With regards to claims 20, Official Notice is taken that the use of CCD cameras as imagers are old and well known in the art. See *In Re Malcolm* 1942C.D.589:543 O.G.440. At the time of the invention it would have been obvious to one of ordinary skill in the art to use a CCD camera as an imager in the apparatus taught by Davis et al since it is well known in the art that CCD cameras provide an enhanced image which would provide a more accurate measurement of the brdf.

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice in the previous Office Action mailed 7/27/05 and in the present Office Action. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the **next reply** after the Office action in which the well known statement was made. The applicant has not presented a traversal in the Amendment

filed 1/20/06, thus the well-known statement is taken to be admitted prior art. See MPEP 2144.03, paragraphs 4 and 6.

Response to Arguments

Applicant's arguments filed 1/20/06 have been fully considered but they are not persuasive. Applicant argues that "the infrared source 20 taught by Davis is not a structured light source for producing light." Examiner respectfully disagrees. In the specification, it states that the illumination is provided by a structured light source such as an array of LEDs. Since applicant does not provide a clear and detailed definition of "structured" in the disclosure, examiner believes that the light source 20 taught by Davis can be interpreted as a structured light source. Furthermore, the language " such as an array of LED" does not limit the structured light source from being an array of LEDS but is merely giving an example of a structured light source.

Allowable Subject Matter

Claims 11-12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 11-12, the prior of record, taken alone or in combination, fails to disclose or render obvious an apparatus for determining a bidirectional reflectance distribution function wherein the focusing means includes a hollow tube lined with mirrors through which light from the light sources passes, in combination with the rest of the limitations of claim 11.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H. Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino
Patent Examiner
Art Unit 2877
March 27, 2005

for Gregory J. Toatley, Jr.
Supervisory Patent Examiner